

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In the Application of:

VLADIMIR GRUSHIN ET AL.

CASE NO.: PE0649 US DIV1

APPLICATION NO.: UNKNOWN

CONFIRMATION NO.: UNKNOWN

GROUP ART UNIT: UNKNOWN

EXAMINER: UNKNOWN

FILED: CONCURRENTLY HERewith

FOR: ELECTROLUMINESCENT IRIIDIUM COMPOUNDS WITH FLUORINATED  
PHENYLPYRIDINES, PHENYLPYRIMIDINES, AND PHENYLQUINOLINES AND  
DEVICES MADE WITH SUCH COMPOUNDS

**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

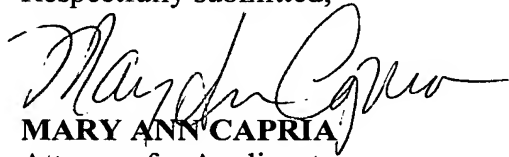
Sir:

In compliance with 37 CFR 1.97 and 1.98, Applicants bring to the attention of the U.S. Patent and Trademark Office information that may be helpful in the examination of the above-identified patent application. All of the information is listed on attached Forms PTO/SB/08A, PTO/SB/08B, and PTO-892.

Benefit of the earlier filing dates of U.S. Patent Application No. 10/027,421 filed December 20, 2001 and U.S. Patent Application No. 09/879,014 filed June, 12, 2001 are claimed under 35 U.S.C. 120 for the above-referenced application and information cited in the priority applications is not supplied with this Information Disclosure Statement.

Should any fee be required in connection with the filing of this Information Disclosure Statement, please charge such fee to Deposit Account No. 04-1928 (E. I. du Pont de Nemours and Company).

Respectfully submitted,



MARY ANN CAPRIA

Attorney for Applicants

Registration No. 32,659

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Dated: October 29, 2003

Enclosures

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 2

### Complete if Known

|                        |                         |
|------------------------|-------------------------|
| Application Number     | 10/027,421              |
| Filing Date            | DECEMBER 20, 2001       |
| First Named Inventor   | VLADIMIR GRUSHIN ET AL. |
| Group Art Unit         | 2815                    |
| Examiner Name          | UNKNOWN                 |
| Attorney Docket Number | PE0649 US CIP           |

### U.S. PATENT DOCUMENTS

| Examiner<br>Initials * | Cite<br>No. <sup>1</sup> | Document Number                 |                 | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|------------------------|--------------------------|---------------------------------|-----------------|--------------------------------|--|---|
|                        |                          | Number - Kind Code <sup>2</sup> | (if known)      |                                |  |   |
|                        |                          | US -                            | 2001/0019782 A1 | 09/06/2001                     | IGARASHI ET AL.                                    |   |
|                        |                          | US -                            | 2001/0053462 A1 | 12/20/2001                     | MISHIMA  |   |
|                        |                          | US -                            |                 |                                |  |   |
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### FOREIGN PATENT DOCUMENTS

| Examiner<br>Initials * | Cite<br>No. <sup>1</sup> | Foreign Patent Document   |                     |                                      | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear | T <sub>6</sub>           |
|------------------------|--------------------------|---------------------------|---------------------|--------------------------------------|--------------------------------|--|---|--------------------------|
|                        |                          | Country Code <sup>3</sup> | Number <sup>4</sup> | Kind Code <sup>5</sup> (if<br>known) |                                |  |   |                          |
|                        |                          | EP                        | 1175128             | A2                                   | 01/23/2002                     | FUJI PHOTO FILM CO.                                |   | <input type="checkbox"/> |
|                        |                          | WO                        | 96/03410            | A1                                   | 02/08/1996                     | BOEHRINGER<br>MANNHEIM GMBH                        |   | <input type="checkbox"/> |
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STATEMENT BY APPLICANT**

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Sheet 2

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**Complete if Known**

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|------------------------|-------------------------|
| Application Number     | 10/027,421              |
| Filing Date            | DECEMBER 20, 2001       |
| First Named Inventor   | VLADIMIR GRUSHIN ET AL. |
| Group Art Unit         | 2815                    |
| Examiner Name          | UNKNOWN                 |
| Attorney Docket Number | 10/027,421              |

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

| Examiner<br>Initials * | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup>           |
|------------------------|--------------------------|---|--------------------------|
|                        |                          | DJUROVICH, PETER I. ET AL., Ir(III) Cyclometalated Complexes As Efficient Phosphorescent Emitters in Polymer Blend and Organic LEDs, Polymer Preprints, 2000, 770-771, 41(1)  | <input type="checkbox"/> |
|                        |                          | CHATANI, NAOTO ET AL., Ru3(CO)12-Catalyzed Reaction of Pyridylbenzenes with Carbon Monoxide and Olefins. Carbonylation at a C-H Bond in the Benzene Ring, J. Org. Chem., 1997, 2604-2610, 62, American Chemical Society   | <input type="checkbox"/> |
|                        |                          | GOSMINI, CORINNE ET AL., Electrosynthesis of functionalized 2-arylpyridines from functionalized aryl and pyridine halides catalyzed by nickel bromide 2,2'-bipyridine complex, Tetrahedron Letters, 2000, 5039-5042, 41, Elsevier Science Ltd.                  | <input type="checkbox"/> |
|                        |                          | CACCHI, SANDRO ET AL., The Palladium-Catalyzed Transfer Hydrogenation/Heterocyclization of B-(2-Aminophenyl)-a,B-ynones. An Approach to 2-Aryl- and 2-Vinylquinolines, Synlett, 1999, 401-404, No. 4, Thieme Stuttgart, New York                                | <input type="checkbox"/> |
|                        |                          | BALDO, M. A. ET AL., Very high-efficiency green organic light-emitting devices based on electrophosphorescence, Applied Physics Letters, July 5, 1999, 4-6, 75(1) American Institute of Physics   | <input type="checkbox"/> |
|                        |                          | BALDO, M. A. ET AL., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, 403, Macmillan Magazines Ltd.  | <input type="checkbox"/> |
|                        |                          | WANG, YUE ET AL., (Hydroxyphenyl)pyridine derivative, its metal complexes and application as electroluminescence material, Chemical Abstracts Service, March 1, 2000, Database No. 133:315395   | <input type="checkbox"/> |
|                        |                          | DEDEIAN K. ET AL., A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: fac Tris-Ortho-Metalated Complexes of Iridium(III) with Substituted 2-Phenylpyridines, Inorg. Chem., 1991, 1685-1687, 30(8), American Chemical Society  | <input type="checkbox"/> |
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| First Named Inventor | VLADIMIR GRUSHIN ET AL. |
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| Group Art Unit | 2815 |
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| Examiner Name | UNKNOWN |
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| Attorney Docket Number | PE0649 US CIP |
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|   |                        | Examiner Name            | UNKNOWN                 |
| Sheet 2 of 2  | Attorney Docket Number | PE0649 US CIP            |                         |

| OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS |                       |   |                |
|--|-----------------------|---|----------------|
| Examiner Initials *                                | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|  |                       | BALDO, M.A. et al., High-efficiency fluorescent organic light-emitting devices using a phosphorescent sensitizer, Nature, February 17, 2000, 750-753, Vol. 403  |                |
|  |                       | DJUROVICH, PETER I. et al., Ir(III) Cyclometalated Complexes as Efficient Phosphorescent Emitters in Polymer Blend and Organic LEDs, Polymer Reprints, 2000, 770-771, 41(1)   |                |
|  |                       | BALDO, M.A. et al., Very high-efficiency green organic light-emitting devices based on electrophorescence, Applied Physics Letters, July 5, 1999, 4-6, 75(1), American Institute of Physics   |                |
|  |                       | LOHSE, OLIVIER, et al., The Palladium Catalysed Suzuki Coupling of 2- and 4-Chloropyridines, Synlett, 1999, 45-48, No. 1, Thieme Stuttgart, New York  |                |
|  |                       | BALDO, M.A. et al., Highly efficient phosphorescent emission from organic electroluminescent devices, Nature, September 10, 1998, 151-154, Vol 395  |                |
|  |                       | DEDEIAN, K. et al, A New Synthetic Route to the Preparation of a Series of Strong Photoreducing Agents: fac Tris-Ortho-Metalated Complexes of Iridium (III) with Substituted 2-Phenylpyridines, , Inorganic Chemistry, 1991, 1685-1687, 30(8)                   |                |
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| Examiner Signature |  | Date Considered |  |
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|                                   |                                       |  |             |
|-----------------------------------|---------------------------------------|--|-------------|
| <b>Notice of References Cited</b> | Application/Control No.<br>09/879,014 | Applicant(s)/Patent Under<br>Reexamination<br>GRUSHIN ET AL. |             |
|                                   | Examiner<br>Erik Kielin               | Art Unit<br>2813   | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name              | Classification |
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|   | A | US-3,718,488                                     | 02-1973         | Trofimenko et al. | 106/1.28       |
|   | B | US-2002/0064681 A1                               | 09-2001         | Takiguchi et al.  | 428/690        |
|   | C | US-  |                 |                   |                |
|   | D | US-  |                 |                   |                |
|   | E | US-  |                 |                   |                |
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**FOREIGN PATENT DOCUMENTS**

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**NON-PATENT DOCUMENTS**

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)  |
|---|---|--|
| X | U | Thompson et al. "Ir(III) cyclometalated complexes as efficient phosphorescent emitters in polymer blend organic LEDs" Polymer Preprints 41(1), 2000, pp. 770-771.  |
| X | V | Dedeian et al. "A new synthetic route to the preparation of a series of strong photoreducing agents: fac tris-ortho-metalated complexes of iridium(III) with substituted 2-phenylpyridines" Inorganic Chemistry, Vol. 30, 1991, 1685-1687. |
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